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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/217,168	12/21/98	ANDERSEN	T 1060

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IM62/0328

EXAMINER	
LEADER, W	
ART UNIT	PAPER NUMBER

1741

DATE MAILED: 03/28/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/217,168

Applicant(s)

Andersen et al

Examiner

William Leader

Group Art Unit

1741

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☐ Responsive to communication(s) filed on _____.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-20 is/are pending in the application.
Of the above claim(s) 17-20 is/are withdrawn from consideration.
- ☒ Claim(s) 11-13 is/are allowed.
- ☒ Claim(s) 1-10, 14, 15 and 16 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 4
- ☐ Notice of References Cited, PTO-892
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-16, drawn to a process for making electrolytic manganese dioxide (EMD), classified in class 205, subclass 539.
- II. Claims 17-20, drawn to an electrode, classified in class 429, subclass 224.

The inventions are distinct, each from the other because:

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are to a method of making EMD and an electrode comprising EMD, however, not the EMD of the first group. That is, the process of the Group I claims can be used to make EMD other than the EMD of the Group II claims.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation between Examiner Mark Ruthkosky and Mr. Clark Dougherty on 2/2/2000 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-16. Affirmation of this election must be made by applicant in replying to this Office action. Claims 17-21 are withdrawn

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from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an

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international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-4, 6-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takehara (5,746,902) et al.

The Takehara et al patent is directed to a process for making electrolytic manganese dioxide. An anodic current density of 0.4 to 0.9 A/dm² can be used. Manganese sulfate in an amount of 0.5 to 1.2 mol/liter may be used to provide manganese ions to the bath. The sulfuric acid concentration may be 0.35 to 0.6 mol/liter. The temperature may be in the range of 90-96 °C. See column 2, lines 3-10. Takehara et al disclose the use of an anode comprised of titanium. See example 1. The ranges for anodic current density, manganese ion concentration, sulfuric acid concentration and temperature overlap those disclosed by Takehara et al. Choice of values within the ranges of process parameters disclosed by Takehara et al would have been obvious because Takehara et al disclose that these ranges are effective in producing electrolytic manganese dioxide.

Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takehara (5,746,902) et al as applied to claims 1-4, 6-8 and 10 above, and further in view of Riggs, Jr. (4,477,320).

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Claims 5 and 9 differ from the process of Takehara et al by reciting the use of a cathode comprising copper. Riggs, Jr. is directed to a method for producing electrolytic manganese dioxide in which improved cathodes fabricated from copper with alloying amounts of silver and phosphorus. See the abstract. The references of record are indicative of the level of skill of one of ordinary skill in the art. It would have been obvious at the time the invention was made to have utilized a cathode comprising copper in the process of Takehara et al because improved performance would have been obtained as taught by Riggs, Jr.

Claims 14, 15 and 16 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Takehara et al.

Claims 14, 15 and 16 are directed to the product of claims 1, 7 and 11, respectively. It is not apparent that the electrolytic manganese dioxide of these claims differs from that disclosed by Takehara et al.

Claims 14, 15 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 14, 15 and 16 recite electrolytic manganese dioxide having a "high" discharge capacity at "high" discharge rates. The scope of these limitation is

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indefinite because the word "high" is a relative term. It is not possible to determine what range of discharge capacity or discharge rate is included within the scope of these claims.


Claims 11-13 are allowed. The prior art does not suggest the particular combination of ranges of process parameters recited in these claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Leader, whose telephone number is (703) 308-2530. The examiner can normally be reached Mondays-Thursdays from 8:00 AM to 5:00 PM eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathryn Gorgos can be reached at (703) 308-3328. The fax phone number for *official* after final faxes is (703) 305-3599. The fax phone number for all other *official* faxes is (703) 305-7718. Unofficial communications to the Examiner should be faxed to (703) 305-7719.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-0661.

WL
William Leader:wtl
March 25, 2000


Kathryn Gorgos
Supervisory Patent Examiner
Technology Center 1700